

1. (Two Times Amended) A ceramic sheet having not more than 5 defects in an area having a length of 30 mm, each defect being detected based on an image obtained with a charge coupled device (CCD) camera and being selected from the group consisting of foreign matter present on a surface of the sheet or inside the sheet, a flaw formed by a depression on the surface of the sheet, and a stain adhering to the surface of the sheet, wherein the ceramic sheet is produced by a process comprising steps of:

sandwiching a green sheet between spacers; and
baking the green sheet while the green sheet is sandwiched between the spacers, where

each of the spacers is either a green sheet or a calcined sheet each including spherical ceramic particles having an average particle diameter of 0.1 to less than 5 μm as a main component.

2. (Amended) The ceramic sheet according to claim 1, wherein the ceramic sheet is used for solid electrolyte, and has an area of 100cm^2 or larger and a thickness of 0.3mm or smaller.

3. (Amended) The ceramic sheet according to claim 2, wherein the solid electrolyte includes zirconia having yttria.

4. (Two Times Amended) The ceramic sheet according to any one of claims 1 to 3, wherein the defect is the flaw or the foreign matter and has an area of 0.1 mm^2 or larger.

5. (Two Times Amended) A method for producing a ceramic sheet, the method comprising steps of:

sandwiching a green sheet between spacers;

baking the green sheet while the green sheet is sandwiched between the spacers; and

producing the ceramic sheet of claim 1, where

each of the spacers is a either a green sheet or a calcined sheet each comprising spherical ceramic particles having an average particle diameter of 0.1 to less than 5 μm as a main component.

6. (Two Times Amended) The method according to claim 5, wherein the content of the spherical ceramic particles is 80 wt% or larger with respect to the weight of the total ceramics contained in each of the spacers.

7. (Two Times Amended) The method according to claims 5 or 6, wherein each of the spacers has a sintering temperature of 50 to 300°C higher than the sintering temperature of the green sheet to be baked.

8. (Two Times Amended) The method according to claims 5 or 6, wherein at least one of the spacers is a green sheet, and the baking calcines the at least one of the spacers to form at least one porous sheet having a porosity of 5 to 60%.

11. (Amended) The green sheet according to claim 9, wherein the spherical ceramic particles have a ratio of a major axis thereof relative to a minor axis thereof of 1 to 3.

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12. (Amended) The calcined sheet according to claim 10, wherein the spherical ceramic particles have a ratio of a major axis thereof relative to a minor axis thereof of 1 to 3.

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13. (Amended) A spacer for use in producing the ceramic sheet of claim 1, wherein the content of the spherical ceramic particles is 80 wt% or larger with respect to the weight of the total ceramics contained in the spacer.

SUPPORT FOR THE AMENDMENT

This Amendment amends Claims 1-8 and 11-13. Support for the amendments is found in the specification and claims as originally filed. In particular, support for Claim 1 is found in the specification at least at page 10, lines 3-6, and page 11, lines 4-7 (a flaw formed by a depression on the surface of the sheet will result from, e.g., "scratching" or "pricking"). No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1-13 will be pending in this application.

Claim 1 is independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

The present invention provides a ceramic sheet having fewer surface defects than conventional ceramic sheets. The inventive ceramic sheet is formed by sintering a green sheet between spacers including spherical ceramic particles, which permit the green sheet to slide easily over the spacer during the sintering without acquiring localized surface flaws.